

REMARKS

Claims 1, 5-8, and 10-15 have been amended.

Claims 2-4, and 17 have been cancelled without prejudice.

Claims 20-24 have been added.

Claims 1, 5-16, and 18-24 are currently pending in this application.

Claims 1 and 14 are in independent format.

1. Claim Amendments

Claims 1, 5-8, and 10-15 have been amended to better set forth that which the Applicant regards as the invention.

Independent Claim 1 has been amended to clarify that the first and second speed sensor units are *differential* speed sensor units, as shown in Figures 3A – 3C, and described at page 7, line 18 through page 9, line 15.

Dependent Claims 5-8, 10, and 13 have been amended to be grammatically consistent with the amendments to Claim 1.

Dependent Claims 11 and 12 have been amended to remove redundancy identified in the PCT Preliminary Examination Report.

Independent Claim 14 has been amended to better set forth the required method steps related to the observation and generation of signals responsive to the passage of random features of the target object, as well as the determination of first and second differential signals as described in connection with the embodiments shown in Figures 3A – 3C, at page 7, line 18 through page 9, line 15.

Dependent Claims 15 and 16 have been amended to be grammatically consistent with the amendments to Claim 14.

2. New Claims

New dependent Claims 20-24 have been added.

New Claim 20 sets forth further limitations associated with the first and second differential speed sensors, as shown in Figures 3A – 3C, and described at page 7, line 18 through page 9, line 15.

New Claims 21 sets forth limitations described at page 7, lines 18-28.

New Claim 22 sets forth an embodiment described at page 5, lines 10-16 and page 9, lines 7-15, related to the detection of surface and/or subsurface target features.

New Claims 23 and 24 set forth limitations associated with the specific configuration or placement of the speed sensors, such as shown in Figures 3A and 3B.

4. Conclusion

Based on the foregoing, an examination of all pending claims is requested.

Respectfully submitted,



Mark E. Books, Reg. No. 40,918
Polster, Lieder, Woodruff & Lucchesi, L.C.
12412 Powerscourt Drive, Suite 200
St. Louis, Missouri 63131
Tel: (314) 238-2400
Fax: (314) 238-2401
mbooks@patpro.com